

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Joint Petition for show cause proceedings ) Docket No. 080278-TL  
against Verizon Florida LLC for apparent violation of )  
Rule 25-4.070, F.A.C., service availability, and )  
impose fines, by the Office of the Attorney General, )  
Citizens of the State of Florida, and AARP )  
\_\_\_\_\_ )

**REBUTTAL TESTIMONY OF RUSSELL B. DIAMOND**

**ON BEHALF OF**

**VERIZON FLORIDA LLC**

**PUBLIC VERSION**

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ECR \_\_\_\_\_  
GCL 3  
OPC \_\_\_\_\_  
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**August 20, 2009**

DOCUMENT NUMBER-DATE  
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FPSC-COMMISSION CLERK

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

2 A. My name is Russell B. Diamond. My address is 5013 Sylvan Oaks Dr.,  
3 Valrico, Florida.

4

5 **Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE AND**  
6 **EDUCATIONAL BACKGROUND?**

7 A. I was employed by Verizon (and its predecessor, GTE) for 31 years  
8 before retiring in July 2009. Before I retired, I was the Florida FiOS  
9 Dispatch Resource Center ("DRC") manager, a position I held from 2005  
10 to November 2007 and from July 2008 until my retirement. From  
11 November 2007 to July 2008, I served as acting director for the DRC  
12 and the Enhanced Verizon Resolution Center ("EVRC"). From 2002 to  
13 2005, I served as DRC manager for the Florida Inland Division for core  
14 operations (*i.e.*, operations for Verizon's copper network). From 2001 to  
15 2002, I was an area manager in Tampa, responsible for the  
16 management of field installation and maintenance technicians. Before  
17 2001, I held a number of finance department positions of increasing  
18 responsibility. I have a bachelor's degree from Illinois State University  
19 and am a registered CPA in Illinois.

20

21 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

22 A. I am testifying on behalf of Verizon Florida LLC ("Verizon"). I am  
23 continuing the work I began on this case when I was employed by  
24 Verizon, but am now working as a contractor rather than as a Verizon  
25 employee.

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FPSC-COMMISSION CLERK

1 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

2 A. The purpose of my rebuttal testimony is to respond to the direct  
3 testimony of Office of Public Counsel witness Earl Poucher and Staff  
4 witness Rick Moses. I will describe Verizon's service repair process;  
5 Verizon's efforts to meet the Commission's out-of-service ("OOS") and  
6 not-out-of-service ("NOOS") objectives; the operational challenges  
7 Verizon faces and its efforts to overcome them; and the competitive  
8 challenges Verizon has and how it seeks to address them. My  
9 testimony concerns Verizon's repair service performance during 2007  
10 and the first three quarters of 2008, which is the period at issue in this  
11 case.

12  
13 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

14 A. Verizon has developed systems and processes that enable it to receive  
15 repair calls from customers around the clock, assign repair tickets to  
16 technicians electronically, and perform repairs seven days a week.  
17 Using these systems and processes, Verizon strives to reach 95%  
18 service levels for OOS and NOOS, but cannot always do so because of  
19 operational and competitive challenges. Operational challenges include  
20 severe weather on the central west coast of Florida that increases  
21 trouble volumes while delaying repairs and cable cuts that can involve  
22 many customers and be time-consuming to fix. Competitive challenges,  
23 which have intensified in recent years, require Verizon to deliver repair  
24 service efficiently and cost-effectively. Verizon has taken a number of  
25 measures to address these challenges and as a result it has continued

1 to deliver good service to its customers.

2

3

**SERVICE REPAIR PROCESS**

4 **Q. PLEASE DESCRIBE VERIZON'S PROCESS FOR RESTORING**  
5 **SERVICE AND CLEARING SERVICE-AFFECTING TROUBLES.**

6 A. Verizon's process involves a number of steps. First, trouble reports are  
7 called in by customers to the EVRC or the Fiber Solution Center  
8 ("FSC"), which create trouble tickets for customers served by the core  
9 (in other words, copper) and FiOS networks, respectively. Different  
10 centers have been established in part because different test systems  
11 are used to diagnose repair issues on the two networks. A trouble ticket  
12 created by the EVRC or FSC is routed either to the customer's central  
13 office (known as a "dispatch-in" ticket), where the ticket is handled by a  
14 central office technician, or to the Dispatch Resource Center ("DRC"),  
15 which assigns the ticket to a field technician (known as a "dispatch out"  
16 ticket).

17

18 **Q. PLEASE DESCRIBE IN MORE DETAIL HOW CALLS FROM**  
19 **CUSTOMERS ARE HANDLED BY THE EVRC AND FSC.**

20 A. Florida repair calls normally are handled by the Tampa EVRC and FSC,  
21 but may be routed to other centers when necessary. Customers may  
22 reach Verizon's repair line 24 hours a day, seven days a week. When  
23 service representatives receive calls, they obtain information from the  
24 customer and do initial testing in an effort to solve the problem on the  
25 spot. If they are unable to fix the problem, they complete an electronic

1 trouble ticket that is processed by an automated system that tests the  
2 customer's line before and periodically after it assigns dispatch-in tickets  
3 to the customer's central office and dispatch-out tickets to the DRC.

4

5 **Q. PLEASE EXPLAIN HOW CENTRAL OFFICE PERSONNEL HANDLE**  
6 **DISPATCH-IN TICKETS.**

7 A. A dispatch-in ticket is sent to the central office that serves the  
8 customer's home. A central office technician receives the trouble ticket,  
9 diagnoses the problem and if possible makes the appropriate repairs. If  
10 the technician determines that the repair cannot be made at the central  
11 office, the ticket is routed to the DRC so it can dispatch a field technician  
12 to make the necessary repair.

13

14 **Q. PLEASE DESCRIBE THE DRC'S RESPONSIBILITIES.**

15 A. The DRC's day-to-day responsibilities include assigning dispatch-out  
16 tickets to technicians, monitoring technicians' progress and calling  
17 customers with status updates. The DRC prioritizes repair tickets using  
18 criteria such as the number of customers affected by an outage, the  
19 severity of the problem, when the customer reported the problem, and  
20 whether the customer has a need that requires expedited treatment. In  
21 recent years, the DRC has sought to improve productivity by assigning  
22 jobs in the same area to the same technician where appropriate.

23

24 The DRC manages overall workload by keeping track of all trouble  
25 tickets that have been submitted, the number of service technicians

1 available, and additional resources such as technicians in other work  
2 groups that may be brought in to assist. Based on the number of trouble  
3 tickets that have been submitted and available technicians, the DRC  
4 determines when repair service can be provided for incoming trouble  
5 tickets, which the DRC provides to the EVRC and FSC so they can give  
6 commitment times to customers when they call to report service  
7 problems.

8

9 **Q. PLEASE DESCRIBE HOW FIELD SERVICE TECHNICIANS ARE**  
10 **DISPATCHED.**

11 A. Field service technicians, who handle both installation service orders  
12 and trouble tickets, report to work centers throughout Verizon's service  
13 territory, and normally work 8 hour shifts. The shifts overlap, which  
14 enables Verizon to provide installation and repair service between 8  
15 a.m. and 8 p.m. Monday to Saturday. Verizon also provides repair  
16 service on a more limited basis from 8 a.m. to 4 p.m. on Sunday.  
17 Technicians receive trouble tickets on their laptops or Blackberries, drive  
18 to the service location, diagnose the problem and complete the repairs.  
19 Once the technician finishes the job, he or she explains to the customer  
20 the cause of the trouble and corrective actions taken and closes the  
21 ticket out electronically. Unless the technician is at the end of the work  
22 shift, he or she is automatically assigned another ticket.

23

24

25

1 Q. AS A PRACTICAL MATTER, HOW MUCH TIME DOES VERIZON  
2 HAVE TO MEET THE COMMISSION'S 24-HOUR OOS SERVICE  
3 OBJECTIVE?

4 A. Verizon has 12 business hours to meet the objective. For example, if a  
5 customer calls in an OOS repair ticket at 7:30 a.m. on a weekday or  
6 Saturday, Verizon must complete the repair by 8 p.m. that day to meet  
7 the objective because Verizon's technicians generally do not do work at  
8 customer's homes between 8 p.m. and 8 a.m.

9  
10 Q. IF VERIZON IS UNABLE TO DISPATCH A TECHNICIAN WITHIN 24  
11 HOURS, WHAT DOES IT DO?

12 A. It dispatches the technician as soon as possible. So even when Verizon  
13 does not meet the 24-hour service objective, it often restores service  
14 shortly after that time and normally is able to do so within 48 hours. The  
15 Rebuttal Testimony of Deborah Kampert discusses Verizon's  
16 performance when measured against intervals slightly longer than 24  
17 hours.

18  
19 Q. AT PAGE 3 OF HIS DIRECT TESTIMONY, MR. MOSES DESCRIBES  
20 TWO SITUATIONS WHERE CUSTOMERS HAVE SPECIAL NEEDS  
21 FOR TELEPHONE SERVICE. DOES VERIZON HAVE A PROCESS  
22 BY WHICH CUSTOMERS WITH SPECIAL NEEDS MAY REQUEST  
23 EXPEDITED TREATMENT?

24 A. Yes. Customers may request expedited repair service when they have  
25 special needs, such as when they have medical conditions or only have

1 a wireline telephone, and Verizon honors those requests. Verizon seeks  
2 to restore service the same day when it receives such requests before  
3 noon, and the same day or first thing the next day if it receives the  
4 request after noon. Verizon also provides expedited treatment when it is  
5 not specifically requested in certain cases, such as when the customer  
6 reports a repeat trouble. From March 2008 (when Verizon began  
7 tracking such requests) to September 2008, Verizon handled more than  
8 7500 repairs on an expedited basis.

9

10 **VERIZON SEEKS TO MEET THE OOS AND NOOS SERVICE OBJECTIVES**

11 **Q. DOES VERIZON STRIVE TO MEET THE COMMISSION'S OOS AND**  
12 **NOOS SERVICE OBJECTIVES?**

13 A. Yes. The DRC manages trouble tickets and workforce to maximize the  
14 number of OOS tickets repaired within 24 hours and the number of  
15 NOOS tickets cleared within 72 hours, with an objective of meeting  
16 those intervals 95% of the time. The DRC and field operations teams  
17 receive daily reports comparing the previous day's OOS and NOOS  
18 performance and month-to-date performance to the 95% service  
19 objectives. The DRC seeks to improve performance as necessary  
20 during the course of a month to meet the objectives. The DRC and field  
21 operations teams also receive monthly reports showing OOS and NOOS  
22 performance for the month and year to date and how that performance  
23 compares to the service objectives. The performance of the DRC  
24 director and managers, and field directors and managers, is measured  
25 in part on how well Verizon performs against the OOS and NOOS



1 objectives.

2

3 **Q. IS IT MORE CHALLENGING TO MEET THE OOS AND NOOS**  
4 **OBJECTIVES TODAY THAN IT WAS WHEN YOU STARTED AS A**  
5 **DRC MANAGER IN 2002?**

6 A. Yes. Verizon faces the same operational challenges – such as the  
7 seasonally severe weather we encounter on the West Coast of Florida –  
8 as we did in 2002, but the competitive landscape has changed a great  
9 deal since then, which has added new challenges. Verizon now must  
10 operate more efficiently and cost-effectively than ever to compete in  
11 today's market, as its core access lines and associated revenues have  
12 been decreasing faster than its core network costs, many of which are  
13 fixed. Verizon still seeks to meet the OOS service objectives as it did in  
14 2002, but the degree of difficulty involved has increased substantially. I  
15 discuss below the challenges Verizon faces and how Verizon is  
16 addressing them.

17

18 **OPERATIONAL CHALLENGES**

19 **Q. DOES VERIZON FACE OPERATIONAL CHALLENGES THAT CAN**  
20 **MAKE IT DIFFICULT MEET THE COMMISSION'S SERVICE**  
21 **OBJECTIVES?**

22 A. Yes. Such challenges include severe weather and cable outages or  
23 damage resulting from causes such as excavation work, moisture and  
24 vandalism.

25

1 Q. PLEASE EXPLAIN HOW SEVERE WEATHER CAN AFFECT  
2 VERIZON'S SERVICE PERFORMANCE.

3 A. Severe weather can affect the timing of individual repairs, such as when  
4 a Verizon technician is en route to a customer's home in time to meet  
5 the 24 hour objective, but cannot make the repair in time due to heavy  
6 rain or lightning. Technicians may not be able to complete repair work  
7 during heavy rain because of the risk that the rain will damage Verizon's  
8 equipment and facilities. Lightning can prevent repairs because Verizon  
9 takes the safety of its employees seriously and instructs its technicians  
10 not to work in unsafe conditions such as a thunderstorm (during which  
11 lightning can strike from as far as 10 miles away). As a result, a  
12 technician may need to stop work at the beginning or during the middle  
13 of a repair visit and wait until the conditions are safe to return to work.

14  
15 Rain and lightning also can affect overall performance by causing spikes  
16 in trouble volumes at the same time repairs are being hampered by the  
17 same rain and lightning, leading to work backlogs. The number of  
18 outages can increase, for example, when lightning strikes copper cable  
19 or other facilities or equipment. The higher the number of lightning  
20 strikes, the more likely it is that Verizon will receive trouble reports  
21 caused by lightning damage. When heavy rain or thunderstorms  
22 persist, technicians may have to stop work multiple times during the day.  
23 The result can be that despite Verizon's best efforts, backlogs develop  
24 that need to be addressed before repairs on new trouble tickets can be  
25 completed.

1 **Q. WHEN DOES THE TAMPA BAY REGION EXPERIENCE SEVERE**  
2 **WEATHER?**

3 A. We experience heavy rains and thunderstorms most frequently during  
4 the rainy season, which takes place from June to September or October.  
5 During this period it is not unusual to see severe weather several days  
6 in a row.

7

8 **Q. PLEASE DESCRIBE THE SPIKES IN TROUBLE TICKETS THAT CAN**  
9 **OCCUR DURING THE RAINY SEASON AND HOW THAT CAN**  
10 **EFFECT OOS AND NOOS RESULTS.**

11 A. During the rainy season we often see weekly volumes that are 50%  
12 higher than normal volumes, and daily spikes that are even higher than  
13 that. These spikes make it extremely difficult (if not impossible) to  
14 restore 95% of outages within 24 hours and 95% of service-affecting  
15 troubles within 72 hours. We cannot expand the workforce in an instant  
16 to meet these intervals for all trouble tickets and it would be cost-  
17 prohibitive to keep extra technicians available who are not needed when  
18 work flows return to normal.

19

20 **Q. WHAT MEASURES DOES VERIZON TAKE TO MANAGE REPAIRS**  
21 **DURING THE RAINY SEASON?**

22 A. Each spring Verizon updates its plans for addressing service needs  
23 during the upcoming rainy season. This assessment takes into account  
24 the number of available core service technicians and expected workload  
25 during that time and addresses how excess workload will be handled.

1 Verizon identifies employees from other work groups who are trained as  
2 service technicians and can supplement the core technician workforce  
3 during the rainy months; calculates the amount of additional overtime  
4 and Sunday work that core technicians can perform; and considers  
5 whether to supplement the Verizon workforce with contract workers.

6

7 **Q. ARE THESE PLANS EFFECTIVE?**

8 A. Yes. These plans help maintain Verizon's performance during the rainy  
9 season, but even with such preparation it is difficult to achieve the OOS  
10 and NOOS service objectives because of the peak volumes that I  
11 described earlier.

12

13 **Q. WHAT CHALLENGES DOES VERIZON FACE FROM CABLE**  
14 **OUTAGES?**

15 A. Cable outages can occur for a number of reasons: Contractors  
16 sometimes cut cables during excavations, for example, and cables can  
17 be damaged by lightning strikes, moisture and vandalism. Repairing  
18 damaged feeder and distribution cable can take longer to diagnose and  
19 repair than individual cable drops and can require technicians with  
20 specialized expertise, often making it more difficult to repair these  
21 facilities in 24 hours. Because these facilities typically serve more than  
22 one customer, an outage lasting longer than 24 hours can result in  
23 multiple misses that can result in a monthly or quarterly service objective  
24 not being achieved.

25

1 **Q. HOW DOES VERIZON ADDRESS POTENTIAL CABLE OUTAGES?**

2 A. Verizon monitors outage reports around the clock to determine whether  
3 four or more customers have reported troubles involving the same  
4 cause, and when such outages are detected a technician is immediately  
5 dispatched regardless of the time of day or night. To expedite repairs,  
6 Verizon has arrangements with vendors that are on continuous standby  
7 to assist in the trenching and excavation activities that may be  
8 necessary to make such repairs. Verizon also has an Air Pressure  
9 Center (“APC”) that continuously monitors air pressure alarms for cables  
10 in Verizon’s network that are pressurized to prevent water from  
11 penetrating the cable sheath and corroding the copper. When pressure  
12 alarms are triggered by a cable puncture or cut, the APC arranges for  
13 repairs to be made on an expedited basis. Verizon also reduces  
14 outages by designing interoffice fiber to provide redundancy so that if a  
15 fiber cable is cut or damaged, traffic can be routed immediately through  
16 other facilities with very limited out-of-service time. Finally, Verizon has  
17 a preventive maintenance plan under which it repairs and replaces  
18 sections of Verizon’s network where numerous cable problems have  
19 been reported.

20

21

**COMPETITIVE CHALLENGES**

22 **Q. PLEASE EXPLAIN THE CHALLENGES POSED BY TODAY’S**  
23 **COMPETITIVE ENVIRONMENT.**

24 A. As I noted previously, the extremely competitive environment in which  
25 Verizon operates dictates that Verizon deliver the service performance

1 customers demand in a competitive market while operating as efficiently  
2 and cost-effectively as possible. Verizon does not have unlimited  
3 resources at its disposal and must manage costs as it strives to meet  
4 the Commission's service objectives.

5

6 **Q. HOW DOES VERIZON SEEK TO ACHIEVE THE SERVICE**  
7 **OBJECTIVES WHILE OPERATING EFFICIENTLY AND COST-**  
8 **EFFECTIVELY?**

9 A. Verizon seeks to achieve these goals in a number of ways. For  
10 example, Verizon strives to improve its efficiency through continued  
11 training so technicians can diagnose problems as quickly as possible,  
12 through more and improved test equipment, and through preventive  
13 maintenance. As I already have discussed, Verizon has developed  
14 flexible approaches to workforce management that enable Verizon to  
15 utilize additional employees and contractors during peak times to clear  
16 trouble tickets. Moreover, despite its best efforts, Verizon frequently  
17 exceeds its operational budget as it seeks to meet the service  
18 objectives.

19

20 **Q. DOES VERIZON'S FTTP NETWORK IMPROVE REPAIR**  
21 **PERFORMANCE?**

22 A. Yes. One way Verizon is responding to the competitive challenge it  
23 faces is by constructing its FTTP network, which not only delivers new  
24 and innovative services to customers, but also reduces repair volumes  
25 for customers on the new network.

1 **Q. HOW DOES THE FTTP NETWORK HELP IMPROVE VERIZON'S**  
2 **REPAIR PERFORMANCE?**

3 A. FTTP has important technical advantages over copper that reduce the  
4 frequency and duration of service quality problems arising in the loop  
5 distribution plant, as well as the time required to detect and remedy  
6 those problems. Because fiber technology is based on optical  
7 transmission over a dielectric medium (glass), rather than electrical  
8 transmission over a conducting medium (copper), it is not susceptible to  
9 electromagnetic interference, is immune to corrosion due to moisture,  
10 and has a higher tensile strength than copper cable — all factors that  
11 can considerably reduce the contribution of weather conditions to  
12 service troubles.

13

14 **Q. DOES THE FTTP REDUCE THE NUMBER OF TROUBLE REPORTS**  
15 **FROM VERIZON'S CUSTOMERS?**

16 A. Yes. From the fourth quarter of 2005 to the fourth quarter of 2008, OOS  
17 and NOOS reports dropped 52%, in significant part because of the  
18 FTTP network.

19

20 **Q. DOES THE FTTP NETWORK OFFER ANY ADVANTAGES OVER THE**  
21 **TRADITIONAL COPPER NETWORK WHEN CUSTOMERS REPORT**  
22 **OUTAGES OR SERVICE-AFFECTING TROUBLES?**

23 A. Yes. When outages and troubles are reported, those problems are  
24 easier to diagnose, localize, and repair than on the traditional network.  
25 Verizon can use a device to send a light signal across the fiber and

1 "ping" the Optical Network Terminal at the home (i.e., the network  
2 interface device for FTTP) to troubleshoot the network and identify the  
3 precise location of the problem, allowing the technician to fix it much  
4 faster than on the traditional network, where the technician may have to  
5 hunt for the problem, sometimes requiring multiple dispatches to repair a  
6 single problem. Thus, a comparatively faster repair interval for voice  
7 service on the FTTP network is both expected and desired – the whole  
8 point of building the new network is to provide a more advanced and  
9 reliable network for Florida consumers.

10  
11 **Q. SHOULD VERIZON'S LEVEL OF SERVICE CONTINUE TO IMPROVE**  
12 **AS IT ROLLS OUT ITS FTTP NETWORK?**

13 A. Yes. Verizon expects important service quality improvements as it  
14 continues to deploy fiber and as more customers, attracted by FiOS  
15 service offerings and pricing, are connected to the fiber network. And  
16 Florida customers have shown an extraordinary demand for these  
17 services – a demand that Verizon is working hard to keep up with every  
18 day. In short, Verizon's deployment of FTTP – and the sales of FiOS  
19 services that depend on such deployment – promote the reliability and  
20 quality of Verizon's network overall. As Verizon serves increasing  
21 numbers of customers on the all-fiber network, Verizon's already solid  
22 service quality performance will improve still further, and Florida  
23 consumers will have numerous additional benefits, in the form of  
24 advanced competitive video and data services, available to them.  
25 Therefore, FTTP deployment and FiOS penetration are key components



1 of Verizon's long-term service quality strategy – and demonstrate its  
2 extraordinary efforts to provide high quality service.

3

4 **Q. AT PAGE 12 OF HIS DIRECT TESTIMONY, STAFF WITNESS MOSES**  
5 **CLAIMS THAT BECAUSE VERIZON HAS SHIFTED TECHNICIANS**  
6 **FROM ITS COPPER CORE TO ITS FTTP NETWORK, VERIZON**  
7 **LACKS THE RESOURCES TO MEET THE SERVICE OBJECTIVES**  
8 **FOR ITS CORE CUSTOMERS. IS THAT TRUE?**

9 A. No. In the first place, Mr. Moses leaves out some important information.  
10 He is correct that the number of core technicians **[BEGIN**  
11 **CONFIDENTIAL]** XXX  
12 XXX  
13 XXX  
14 XXX  
15 XXX  
16 XXX  
17 XXXXXXXXXXXXXXXXXXXXXXX. **[END CONFIDENTIAL]**

18

19 Mr. Moses also fails to note that approximately half of Verizon's FiOS  
20 technicians have been trained to work on the copper network and that  
21 Verizon draws on these technicians when necessary to make repairs to  
22 the copper network.

23

24 **Q. DOES VERIZON CONTINUE TO PROVIDE HIGH-QUALITY SERVICE**  
25 **TO THE CUSTOMERS ON ITS CORE NETWORK?**

1 A. Absolutely. The majority of Verizon's customers are served over its core  
2 network and it has every incentive to retain their business by providing  
3 excellent repair service.

4

5 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

6 A. Yes.

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